

WHAT IS CLAIM IS:

1. A sound retrieval apparatus for decoding sound data encoded in advance into a plurality of sound signals to be provided to a plurality of speakers for outputting sound in a three-dimensional sound field, said sound signals being respectively related to a plurality of channels; comprising:
- 5 decoding means for decoding said sound data into said sound signals respectively on said channels;
- assigning means for assigning said channels to said speakers respectively based on the channel assignment information about a specific association between
- 10 said channels and said speakers;
- information storing means for storing said channel assignment information;
- and
- control means for controlling said assigning means based on said channel assignment information to ensure that said sound signals on said channels are
- 15 provided to said respective speakers in association with said channels.
2. A sound retrieval apparatus as set forth in claim 1, in which said control means is operative to judge whether there is sound data on said respective channels or not to cause said speakers in association with said channels having no sound data thereon to be inoperative.
- 20 3. A sound retrieval apparatus as set forth in claim 1, which further comprises output level adjusting means for adjusting the output levels of said sound signals respectively on said channels.
- 25 4. A sound retrieval apparatus as set forth in claim 3, in which said output level adjusting means is operative to adjust said output levels of said sound signals based on the output level information about a specific association between said channels and said output levels of said sound signals respectively on said channels, and said
- 30 information storing means is operative to store said output level information.
5. A sound retrieval apparatus as set forth in claim 3, in which said output level adjusting means is operative to adjust respective said sound signals in equivalent ratio having said sound signals on said channels maintained in balance with one another.
- 35 6. A sound retrieval apparatus as set forth in claim 4, in which said output level adjusting means is operative to adjust respective said sound signals in equivalent ratio

having said sound signals on said channels maintained in balance with one another.

7. A sound retrieval apparatus as set forth in claims 1 which further comprises selecting means for selecting said sound signals decoded by said decoding means, and
5 summing means for summing said sound signals selected by said selecting means to output summed sound signals to respective said speakers.

8. A sound retrieval apparatus as set forth in claims 3 which further comprises selecting means for selecting said sound signals decoded by said decoding means, and
10 summing means for summing said sound signals selected by said selecting means to output summed sound signals to respective said speakers.

9. A sound retrieval apparatus as set forth in claims 1 which further comprises display means for displaying the output levels of said sound signals respectively on
15 said channels.

10. A sound retrieval apparatus for decoding sound data encoded in advance into a plurality of sound signals to be provided to a plurality of speakers for outputting sound in a three-dimensional sound field, said sound signals being respectively related to a plurality of channels; comprising:

20 decoding means for decoding said sound data into said sound signals respectively on said channels;

assigning means for assigning said channels to said speakers respectively in accordance with the identification data identifying a specific association between said channels and speakers;

25 detecting means for detecting said identification data attached to said sound data;

control means for controlling said assigning means in accordance with said identification data to ensure that said sound signals on said channels are provided to said respective speakers in association with said channels.

30 11. A sound retrieval apparatus as set forth in claim 10, in which said control means is operative to judge whether there is sound data on said respective channels or not to cause said speakers in association with said channels having no sound data thereon to be inoperative.

35 12. A sound retrieval apparatus as set forth in claim 10, which further comprises output level adjusting means for adjusting the output levels of said sound signals

respectively on said channels.

13. A sound retrieval apparatus as set forth in claim 12, in which said output level adjusting means is operative to adjust said output levels of said sound signals based on the output level information about a specific association between said channels and said output levels of said sound signals respectively on said channels, and said information storing means is operative to store said output level information.
14. A sound retrieval apparatus as set forth in claim 12, in which said output level adjusting means is operative to adjust respective said sound signals in equivalent ratio having said sound signals on said channels maintained in balance with one another.
15. A sound retrieval apparatus as set forth in claim 13, in which said output level adjusting means is operative to adjust respective said sound signals in equivalent ratio having said sound signals on said channels maintained in balance with one another.
16. A sound retrieval apparatus as set forth in claims 10 which further comprises selecting means for selecting said sound signals decoded by said decoding means, and summing means for summing said sound signals selected by said selecting means to output summed sound signals to respective said speakers.
17. A sound retrieval apparatus as set forth in claims 12 which further comprises selecting means for selecting said sound signals decoded by said decoding means, and summing means for summing said sound signals selected by said selecting means to output summed sound signals to respective said speakers.
18. A sound retrieval apparatus as set forth in claims 10 which further comprises display means for displaying the output levels of said sound signals respectively on said channels.
19. A sound data recording apparatus for recording sound data encoded in advance from a plurality of sound signals to be provided to a plurality of speakers outputting sound in a three-dimensional sound field, said sound signals being respectively related to a plurality of channels; comprising:
inputting means for having the identification data identifying a specific

association between said channels and speakers inputted thereto; and
recording means for recording said identification data attached to said sound
data.